

We claim:

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1. An oven door locking mechanism which locks and unlocks the oven door at substantially different temperatures.
2. The oven door locking mechanism of claim 1 which locks the oven door at a temperature substantially higher than that at which it unlocks the oven door.
3. The oven door locking mechanism of claim 1 comprising a thermally responsive element capable of actuating locked and unlocked states of the oven door at different temperatures.
4. The oven door locking mechanism of claim 1 comprising a clutch mechanism.
5. The oven door locking mechanism of claim 4 wherein said clutch mechanism comprises:
 - a thermally responsive element;;
 - a clutch; and
 - a lock member.

6. The oven door locking mechanism of claim 5
wherein said clutch has a first side and a second side, wherein said first side is
engaged with said second side.

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7. The oven door locking mechanism of claim 5 further
comprising:
a first spring in contact with said lock member,
wherein said lock member defines a first side of said clutch as a keyed
aperture, said keyed aperture is engaged with said thermally responsive
element.

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8. ~~The oven door locking mechanism of claim 7, wherein~~
the keyed aperture comprises an annular recess.

9. The oven door locking mechanism of claim 7 wherein
said lock member has a first end and a second end, said first end defines said
keyed aperture.

10. The oven door locking mechanism of claim 7 wherein
said thermally responsive element defines a second side of said clutch as a
slot, ~~said slot in engagement with said keyed aperture.~~

11. The oven door locking mechanism of claim 7 wherein said first spring encompasses said lock member.

12. The oven door locking mechanism of claim 10 wherein said slot is elongated.

13. The oven door locking mechanism of claim 7 further comprising:
a latch mechanism defining a lock hole adapted to receive said lock member; and
5 a mounting bracket wherein said first spring is affixed to said mounting bracket.

14. The oven door locking mechanism of claim 10 wherein said thermally responsive element is a bimetallic leaf secured at a first end

16. The oven door locking mechanism of claim 15 wherein
said receiver member is a bushing.

17. — ~~An oven door locking mechanism comprising:~~

5 a clutch;

 a thermally responsive element defining a second side
of said clutch as a slot;

 a lock member defining a first side of said clutch as a
recess, said recess is engaged with said slot;

 a latch mechanism defining a lock hole adapted to
receive said lock member at end opposite said recess, said lock hole comprises
a bushing; and

10 a mounting bracket comprising a first spring, said first
spring encompasses said lock member.

18. An oven door locking mechanism comprising:

 a clutch;

 a first bimetallic leaf adapted to deflect in response to heating and cooling and defining one side of said clutch as a slot;

 5 a lock member defining a second side of said clutch as a recess, wherein said recess is engaged with said slot;

 a latch mechanism defining a lock hole adapted to receive said lock member at end opposite said recess;

 a second bimetallic leaf adapted to deflect into engagement with a second notch defined in said latch mechanism to selectively prevent actuation of said latch mechanism; and

 10 a mounting bracket comprising a first spring, said first spring encompasses said lock member.

(odd A3)